CHEMICAL WASTE MANAGEMENT, INC.
A WASTE MANAGEMENT COMPANY

Kettleman Hills Facility
P.O. Box 471
Kettleman City, CA 93239-0471

July 11, 2003

CERTIFIED MAIL 7000 0520 0024 2084 3784

Josh Lewis
United States Environmental Protection Agency
North Crystal Station
2800 Crystal Drive
6th Floor
Arlington, Virginia 22202

Re: Chemical Waste Management, Inc., Kettleman Hills Facility – Selenium Variance Annual Report (67 FR 36813)

Dear Mr. Lewis:

Chemical Waste Management, Inc.'s, Kettleman Hills Facility (KHF) site-specific treatment variance (FRL-6346-2) expired on May 11, 2002. The Kettleman Hills Facility requested for a continuation of this variance on March 25, 2002. EPA issued KHF a new site-specific treatment variance by EPA that became effective on July 12, 2002 (67 FR 36813). Pursuant to the requirements of the site-specific treatment variance 67 FR 36813, (KHF), is submitting this annual report. The annual report must contain information regarding any alternative treatment technologies being investigated, and provide any analytical data from these studies. The report is also to include the stabilization recipes being used to meet the alternative treatment standards, the selenium concentrations in untreated wastes, and the analytical results from these treated wastes.

Alternative Treatment Technologies

This waste does not contain sufficient organics to qualify as a candidate for incineration. The Kettleman Hills Facility has continued to discuss with vendors the availability of new products that may prove effective in treating selenium. In the past year Kettleman Hills Facility has conducted 15 bench scale tests to evaluate other reagents to determine their effectiveness in the treatment of selenium. Kettleman is further evaluating these results to determine future recipe schemes for those reagents that appear to be effective. Although, at this time, no reagent appears to be any more effective than the ferrous sulfate that we have been using historically. Cost and availability may also play a role in determining whether a reagent is a practical replacement for ferrous sulfate. Table 1

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provides a summary of the study, including the reagents utilized, the recipe(s) with each reagent, and the post-treatment TCLP results.

Stabilization Recipes and Analytical Data

Table 2 lists all the selenium waste from Owens Brockway and Saint Gobain Containers (formerly Ball Foster Glass) that have been treated since the issuance of last year's annual report, dated May 6, 2002. The table lists the manifest number for each load, as well as the untreated and treated selenium concentrations. The table also lists the stabilization recipe utilized to achieve the approved selenium treatment standards detailed in the variance. In some cases KHF was able to achieve selenium concentrations below the current Phase IV treatment standard (5.7 mg/l).

If you have any questions regarding the contents of this annual report please contact me at (559) 386-6269.

Sincerely,

Jim Sook, CHMM
Technical Manager
CHEMICAL WASTE MANAGEMENT, INC.
Kettleman Hills Facility

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cc: Janice Yonekura, DTSC
Shelton Grey, RWQCB
EMD File

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TABLE 1
SELENIUM TREATMENT STUDY

Recipe #	Waste Ratio	Ferrous Sulfate	Sodium Carbonate	Sodium Bisulfate	Sodium Metabisulfite	Stannous Sulfate	Activated Carbon	Calcium Polysulfide	Phosphoric Acid (86%)	Cement	CKD	TCLP Result (mg/l)
1	1.0	***	***	***	***	***	***	***	***	***	***	410
2	1.0	0.4	***	***	***	***	***	***	***	0.6	1.0	65.2
3	1.0	0.5	***	***	***	***	***	***	***	0.7	1.0	66.0
4	1.0	1.0	***	***	***	***	***	***	***	1.0	0.6	36.8
5	1.0	***	0.5	***	***	***	***	***	***	***	1.0	50.6
6	1.0	***	0.5	***	***	***	***	***	***	0.5	0.5	49.8
7	1.0	***	***	0.5	***	***	***	***	***	***	1.0	67.7
8	1.0	***	***	0.5	***	***	***	***	***	0.5	0.5	64.6
9	1.0	***	***	***	0.5	***	***	***	***	***	1.0	80.7
10	1.0	***	***	***	0.5	***	***	***	***	0.5	0.5	80.9
11	1.0	***	***	***	***	0.5	***	***	***	***	1.0	57.8
12	1.0	***	***	***	***	0.5	***	***	***	0.5	0.5	63.9
13	1.0	***	***	***	***	***	0.5	***	***	***	1.0	67.4
14	1.0	***	***	***	***	***	***	0.5	***	0.5	1.0	48.6
15	1.0	***	***	***	***	***	***	***	0.5	***	1.0	85.6
16	1.0	***	***	***	***	***	***	***	0.5	0.5	1.0	93.6

All waste and reagent numbers are in parts by weight.

TABLE 2
SELENIUM VARIANCE TREATMENT RESULTS

Date Received	Generator	Manifest #	Stabilization Recipe	Selenium Untreated	Selenium Treated	Variance Standard	Phase IV Standard
07/25/02	Owens Brockway	21775981-01	0.8 F; 1.0 C; 1.0 CKD	252	3.35	51mg/l	5.7mg/l
07/25/02	Owens Brockway	21775981-02	0.8 F; 1.0 C; 1.0 CKD	213	4.66	51mg/l	5.7mg/l
10/09/02	Owens Brockway	21992843	0.4 F; 0.8 C; 0.4 CKD	199	9.83	51mg/l	5.7mg/l
10/10/02	Owens Brockway	21992844-01	0.15 F; 0.4 C; 0.2 CKD	53.6	4.03	51mg/l	5.7mg/l
10/10/02	Owens Brockway	21992844-02	0.3 F; 0.6 C; 0.4 CKD	82.4	9.79	51mg/l	5.7mg/l
10/17/02	Owens Brockway	21992845	0.8 F; 1.0 C; 1.0 CKD	299	7.56	51mg/l	5.7mg/l
11/15/02	Owens Brockway	21993144	0.5 F; 1.0 C; 0.5 CKD	198	7.65	51mg/l	5.7mg/l
11/15/02	Owens Brockway	21993145	0.4 F; 0.8 C; 0.8 CKD	175	22.4	51mg/l	5.7mg/l
11/19/02	Owens Brockway	21993148	0.5 F; 0.8 C; 0.8 CKD	230	10.9	51mg/l	5.7mg/l
11/21/02	Owens Brockway	21993130	0.4 F; 0.8 C; 0.4 CKD	193	9.4	51mg/l	5.7mg/l
11/25/02	Owens Brockway	21993149	0.4 F; 1.0 C; 0.8 CKD	257	5.42	51mg/l	5.7mg/l
11/25/02	Owens Brockway	21993129	0.8 F; 1.0 C; 0.5 CKD	338	5.82	51mg/l	5.7mg/l
01/07/03	Owens Brockway	22256708	0.4 F; 0.8 C; 0.4 CKD	176	6.04	51mg/l	5.7mg/l
01/08/03	Owens Brockway	22256709	0.15 F; 0.5 C; 0.5 CKD	3.28*	12.1	51mg/l	5.7mg/l
01/09/03	Owens Brockway	22256707	0.8 F; 1.0 C; 1.0 CKD	304	3.08	51mg/l	5.7mg/l
02/17/03	Owens Brockway	22567361	0.5 F; 0.8 C; 0.8 CKD	223	1.75	51mg/l	5.7mg/l
02/17/03	Owens Brockway	22567363	1.0 F; 1.0 C; 1.0 CKD	186	2.65	51mg/l	5.7mg/l
03/21/03	Owens Brockway	22475229	0.8 F; 1.0 C; 1.0 CKD	295	1.66	51mg/l	5.7mg/l
05/12/03	Owens Brockway	22391380	1.0 F; 1.0 C; 0.6 CKD	410	Pending	51mg/l	5.7mg/l
05/14/03	Owens Brockway	22391393	0.5 F; 0.8 C; 0.8 CKD	241	Pending	51mg/l	5.7mg/l
07/09/03	Owens Brockway	22736483	Pending	Pending	Pending	51mg/l	5.7mg/l
09/09/02	Saint Gobain	92896515	1.4 F; 1.2 C; 1.6 CKD	190	2.97**	25 mg/l	5.7mg/l

KEY:
F = Ferrous Sulfate
C = Portland Cement
CKD = Cement Kiln Dust

12/23/02	Saint Gobain	92896514	1.0 F; 1.0 C; 0.8 CKD	245	Pending	25 mg/l	5.7mg/l
05/22/03	Saint Gobain	92896508	0.1 CKD	8.17	67.6***	25 mg/l	5.7mg/l
06/06/03	Saint Gobain	92896545	Pending	129	Pending	25 mg/l	5.7mg/l
07/10/03	Saint Gobain	92896509	Pending	Pending	Pending	25 mg/l	5.7mg/l

* The raw TCLP result from the sample obtained from this load was 3.28 mg/l. The recipe utilized for this load was 0.05 F; 0.4 C; 0.4 CKD. The post-treatment TCLP result was 52.2 mg/l. Subsequently a remix recipe had to be developed to treat the waste below the threshold of 51 mg/l. The recipe for the remix was 0.1 F; 0.1 C; 0.1 CKD. The recipe listed in the above table represents all of the reagents used to achieve the final TCLP result of 12.1 mg/l. The actual raw concentration of the waste is unknown.

** The recipe used to treat this load was 1.0 F; 1.0 C; 1.0 CKD. The post-treatment TCLP result was 29 mg/l. Subsequently a remix recipe had to be developed to treat the waste below the threshold of 25 mg/l. The recipe for the remix was 0.4 F; 0.2 C; 0.6 CKD. The recipe in the table represents all of yje reagents used to achieve the final TCLP result of 2.97 mg/l.

*** The treated waste failed the approved selenium treatment standard for Saint Gobain. The waste will be re-treated to less than 25 mg/l prior to disposal. disposal. The original sample obtained was not representative of the actual waste.

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